

REMARKS

This Amendment is submitted in response to the Office Action dated September 8, 2004. In the Office Action, the Patent Office rejected Claims 1-10 and 17-22 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement and containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that Applicant, at the time the application was filed, had possession of the claimed invention. In addition, Claims 1-10 and 17-22 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement and claiming subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention. Claims 11-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Algers et al.* (U.S. Patent No. 6,058,776); and Claims 15 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Algers et al.* in view of *Fox et al.* (U.S. Patent No. 5,705,742).

By the present Amendment, Applicant amended Claims 1, 11, 14, and 17. Applicant asserts that the amendments to the claims and the remarks that follow overcome the rejections made by the Patent Office and place the application in condition for allowance. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 1-10 and 17-22 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Patent Office also rejected Claims 1-10 and 17-22 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement.

In response, Applicant amended Claim 1 to define a sensor positioned to detect the intensity of emitted light within the machine element which is not absorbed by the coating on the interior surface of the machine element. Further, Applicant amended Claim 17 to have the step of measuring intensity of emitted light which is not absorbed by a coating on the interior surface of the machine element wherein the light is detected by a sensor. Applicant asserts that support is provided in the specification on page 7, lines 1-5, which states that "a portion of the light emitted by the light source 18 may be absorbed by the coating 21 on the shaft surface 24. The light sensor 20 measures the intensity of light within the interior of the cylinder 10 that is not absorbed by the coatings 19, 21."

Accordingly, the rejections of Claims 1-10 and 17-22 under 35 U.S.C. §112, first paragraph, have been overcome and should be withdrawn. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 11-14 under 35 U.S.C. §103(a) as being unpatentable over *Algers et al.*

(U.S. Patent No. 6,058,776). This rejection is traversed for the reasons that follow.

Independent Claim 11 defines an apparatus for cleaning a machine component. The apparatus has a machine element having a body defining an interior wherein the body has a length defined between a first end and a second end. The first end has a wall having an opening. The first wall has a surface which is exterior to the machine element. A first brush is positioned on the surface of the wall wherein the first brush is exterior to the machine element and contacts a shaft element.

On the contrary, *Algiers et al.* fail to teach or suggest the first brush exterior to the machine element of independent Claim 11. *Algiers et al.* merely teach "a sealing ring, disposed along an inner surface of the opening" and that the "sealing ring may in some embodiments be combined with a ring shaped brush or the like in order to further improve the cleaning."

Moreover, *Algiers et al.* actually teach away from placement of a brush on the exterior surface of a machine element. In column 2, lines 34-37, *Algiers et al.* state:

"When metering is not taking place then the piston is kept in a retracted position so that the tip of it is in the level of the tube wall and the tube gets a smooth surface without protruding objects or pits."

Algiers et al. teach the importance of the tube getting a smooth surface without any protruding objects. Placement of a brush exterior to the machine element, as required by independent

Claim 11, provides a protruding object on the surface of the machine element. Accordingly, *Algiers et al.* teach away from placement of a brush exterior to the machine element. Nowhere do *Algiers et al.* teach or suggest the elements of independent Claim 11. On the contrary, *Algiers et al.* teach the placement of a brush on the interior of a machine element.

The Patent Office further rejected Claims 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over *Algiers et al.* in view of *Fox et al.* (U.S. Patent No. 5,705,742). Applicant submits, however, that *Fox et al.* also fail to teach or suggest that which is not taught by *Algiers et al.* with respect to amended Claim 11, from which Claims 15 and 16 depend. In addition, this rejection is traversed for the reasons that follow.

In the Office Action, the Patent Office asserts that:

"it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a light source and sensor as claimed in the apparatus of *Algiers et al.* in view of *Fox et al.* to verify correct operation of the machine element by monitoring the position of the head element".

Independent Claim 11, as amended, defines an apparatus that has a body that has an interior surface and further wherein the interior surface has a light-absorbing coating. On the contrary, *Fox et al.* merely teach an apparatus which has a laser positioned at a first wall. The laser emits a beam toward a valve, and the beam is reflected to a sensor to determine the position of a machine element. Nowhere do *Fox et al.* teach or suggest a light-

absorbing coating. Therefore, *Fox et al.* do not teach or suggest the elements of independent Claim 11, from which Claims 15 and 16 depend.

Moreover, neither *Algiers et al.* nor *Fox et al.*, taken singly or in combination, teaches or suggests the elements of independent Claim 11, from which Claims 15 and 16 depend. Namely, *Algiers et al.* and *Fox et al.*, taken singly or in combination, do not teach or suggest an apparatus for measuring the displacement of a head element having a body defining an interior wherein an interior surface of the machine element has a light-absorbing coating.

Further, Applicant asserts that one of ordinary skill in the art at the time of Applicant's invention would never have been motivated to combine *Algiers et al.* and *Fox et al.* in the manner suggested by the Patent Office in formulating the rejections under 35 U.S.C. §103(a).

It is submitted that the question under §103 is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. In re Simon, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972). That elements, even distinguishing elements, are disclosed in the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of the teachings of the references in their entireties,

would have been obvious to one of ordinary skill in the art at the time the invention was made. Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983).

It is insufficient that the art disclosed components of Applicant's invention. A teaching, suggestion, or incentive must exist to make the modification made by Applicant. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1988).

In view of the foregoing remarks and amendments, Applicant respectfully submits that the rejections of Claims 11-16 under 35 U.S.C. §103(a) have been overcome and should be withdrawn. Notice to that effect is requested..

Claims 2-10 depend from Claim 1; Claims 12-16 depend from Claim 11; and Claims 18-22 depend from Claim 17. These claims are further believed allowable over the references of record since each sets forth additional structural elements and novel steps of Applicant's apparatus, system and method for position monitoring and/or cleaning of a machine element, respectively.

In view of the foregoing remarks and amendments, Applicant respectfully submits that all of the claims in the application are in allowable form and that the application is now in condition for allowance. Further, Applicant submits that neither further search nor consideration would be necessitated by entry of this Amendment;

therefore, entry of this Amendment is proper and should be effected.

If, however, any outstanding issues remain, Applicant urges the Patent Office to telephone Applicant's attorney so that the same may be resolved and the application expedited to issue. Applicant requests the Patent Office to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,

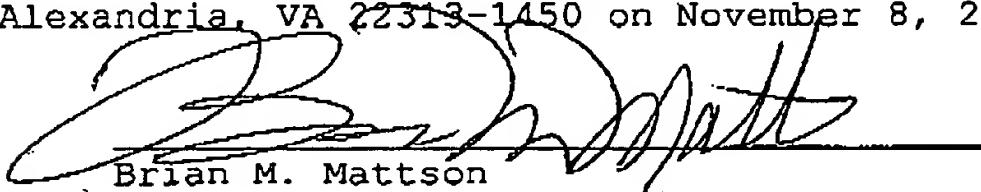


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CERTIFICATE OF MAILING

I hereby certify that this **Amendment After Final and Transmittal Letter** are being transmitted via telefax (703) 872-9306 to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 8, 2004.



Brian M. Mattson